



HP 310x IP Phone Series

Data sheet

Product overview

The HP 310x IP Phone Series offer full-featured, easy-to-use basic phones well-suited for user environments such as in classrooms, on manufacturing floors, and in warehouses. The series also features intuitive business phones ideally suited for demanding business environments. Basic phones are available with speakers, and business phones are available with backlit displays. The series also offers an attendant console—ideal for businesses requiring the personal touch of live call answering while demanding efficient call handling. Both basic and business phones enable quick access to frequently used functions; they feature sharp acoustics and an ergonomics-inspired design to encourage collaboration. The HP 3101SP Basic Speaker Phone provides big-phone features in a compact form factor: four fixed-feature buttons (four programmable with speaker phone). The HP 3102 Business Phone offers the convenience of 10 fixed-feature buttons and the flexibility of 18 programmable buttons.

Key features

- NBX, VCX, SIP-based support
- 10/100 Ethernet connectivity/802.3af PoE support
- Browser-based administration and easy setup
- Wideband audio-ready (not 3105)
- Multi-position stand for desktop/wallmount use



Features and benefits

Management

- **Nine definable ring tones:** offer a choice of ring tones, which are used when alerting users of new incoming calls and can be configured via the Web provisioning interface; provides customers with a choice to further personalize the phone to meet their own needs
- **Phone license usage:** 310x IP phones require system software support to download images and to register successfully with the appropriate server; phone licenses are required to operate all HP IP phones running on either the NBX or VCX platforms and can be installed directly on the server
- **Paper labels for fixed or mappable feature buttons:** both the 3101 and 3102 phones come with removable paper labels that can be used to label or customize each feature button or each mappable button with its designated/mapped functionality name
- **Browser-based management from server:** Web-based management on the server eases configuration tasks and makes advanced features easier to master; customization capabilities allow users to accomplish a variety of setup procedures themselves

Connectivity

- **Two RJ-45 switched 10/100 Ethernet ports:** provide one-wire connectivity between the phone and a PC, which allows the phone to share the same wiring, eliminating the cost and complexity of running a second cable to every location

Convergence

- **IEEE 802.3af PoE Class 1 compliant (Power over Ethernet):** the 3101SP basic speaker phone and the 3102 business phone can be easily deployed by leveraging the built-in support for Power over Ethernet, so they do not require their own dedicated AC power adapter, avoiding wiring clutter and enabling quick setup

Technical features

- **Flexible date/time display:** allows administrators or users to configure date/time displays on the phones using the Web provisioning interface, which provides displays based on user preference or location preference
- **Hands-free installation:** allows the system to work in a mode where the system's only configuration is done by the administrator, with the phone's configuration automatically detected (phone number, download address, etc.) just by plugging in the phone; this is accomplished using MAC address provisioning
- **Automatic software updates:** With the VCX IP Telephony solution, Session Initiation Protocol (SIP)-based 3101, 3102, and 3105 IP phones support automatic detection of phone software update version; this allows software upgrades to be delivered automatically to phones without the need to reboot phones; upgrade detection is polled in a random manner on 30-minute cycles
- **Automatic profile updates:** when connected to a VCX IP Telephony solution, 3101, 3102, and 3105 IP phones support the ability to automatically update the phone profile without logout or login when any administrative changes are made
- **Volume control:** volume settings can be adjusted on all 310x IP phones for speaker, handset, and ringers
- **DTMF Monotone:** VCX IP Telephony solution supports a user-configurable setting for DTMF or monotone feedback to dialpad presses; DTMF Monotone on the phone is considered a security feature to prevent malicious parties from decoding the tones
- **Acoustic echo cancellation:** cancels acoustic echo for the delay of up to 80 ms; phone cancels local echo generated by feedback from the handset earpiece to the handset microphone
- **Phone mobility and roaming:** allows system administrator to determine whether end users can move their stations; phones/soft clients can be locked to a physical switch port (using MAC address) or to a specific IP subnet; end users can move their phones to any location that has IP access to the user's telephony server, regardless of geographic location; hot desking is supported with VCX when logging into a different VCX region or branch that is configured for Global Directory

Phone characteristics

- **Wide range of codecs support:** support for G.711, ADPCM, and G.729A/B on NBX platforms and G.722, G.711, and G.729 on VCX platforms allows the phone to negotiate high-fidelity or lower-bandwidth codecs during call setup, giving it flexibility in voice quality and network bandwidth usage
- **Fixed-feature buttons:** 3101 phones support 5 fixed-feature buttons, 3102 phones support up to 10, and 3105 attendant consoles support 4; Hold and Message buttons are clearly distinguished to help users handle calls professionally; dedicated Mute, Speaker, and Volume buttons allow for efficient call handling
- **Three softkeys below liquid crystal display (LCD):** an intuitive display with three softkeys and a four-way cursor controller provides instant access to the location's user directory and call logs
- **Four-way navigation control:** phones include three softkeys and four-way cursor for seamless menu manipulation and data entry
- **Phone handset support for G.722 wideband audio:** anticipates evolving standards with a wideband audio-ready handset
- **RJ-9 headset jack:** allows industry-standard RJ-9-compatible wired and wireless headsets and handset lifters to be connected for easy call handling and convenience; allows for easy connection of the HP 3101 and 3102 handsets
- **Two-line, 160x33 pixel 3.4 inch LCD:** both the 3101 and 3102 phones have a two-line display, allowing for a varied number of simultaneous calls at any time, depending on if they're connected to the NBX or VCX; the LCD supports two character lines and is capable of displaying 24 characters
- **Adaptive jitter buffer:** media and packet-processing technology in the 310x phones allow them to reduce interruption or delay in the voice audio packets, which significantly improves overall voice quality
- **Support of IP-ToS, IEEE 802.1p, and VLAN:** the 3101 phone supports various Quality of Service (QoS) settings that help ensure signaling and media VoIP voice packets receive the preferential treatment they require on the network, increasing total voice quality; options include IP Type of Service (ToS), IEEE 802.1p priority tag based on IP address, and traffic directing on a per-VLAN-segment basis

- **DHCP Option 184:** 310x phones can receive their IP telephony server IP address from DHCP by using DHCP Option 184; when the phone boots up, it's already autopopulated with the primary (and secondary if it's VCX) SIP server information, making phone setup easier
- **Support for NBX and VCX platforms:** 310x IP phones are capable of being discovered with the NBX server and registering with the VCX SIP server and downloading their phone profile from the server
- **Support for silence suppression:** 310x phones support silence suppression with the use of G.729b Codec; this is used to prevent transmission of voice packets over the network when one of the parties involved in a call is not speaking, reducing bandwidth usage and providing a major benefit
- **Support for speaker phone:** the 3101 phones with a half-duplex speaker improve voice communications by allowing a two-way speaker phone for convenient hands-free telephony services; the 3102 delivers the audio performance of a high-quality, full-duplex speaker phone

Warranty and support

- **1-year warranty:** with advance replacement and 30-calendar-day delivery (available in most countries)
- **Electronic and telephone support:** limited electronic and telephone support is available from HP; refer to www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases:** refer to www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

HP 310x IP Phone Series

Specifications



HP 3101SP Basic Speaker Phone (JE221A)



HP 3102 Business Phone (JE223A)



HP 3105 Attendant Console (JE228A)

Ports	2 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full 2 RJ-9 (headset and handset)	2 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full 2 RJ-9 (headset and handset)	2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only
Physical characteristics			
Dimensions	8.7(d) x 8.3(w) x 4.3(h) in. (22.1 x 21.08 x 10.92 cm)	9.1(d) x 10.6(w) x 4.3(h) in. (23.11 x 26.92 x 10.92 cm)	7.5(d) x 10.3(w) x 3.2(h) in. (19.05 x 26.16 x 8.13 cm)
Weight	1.92 lb. (.87 kg), Fully loaded phone, handset, and cord	2.34 lb. (1.06 kg), Fully loaded phone, handset, and cord	1.74 lb. (.79 kg), Fully loaded attendant console, handset, and cord
Mounting	Rests on multi-angle desk stand or wallmount	Rests on multi-angle desk stand or wallmount	Rests on multi-angle desk stand or wallmount
Environment			
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	5% to 85%, non-condensing	5% to 85%, non-condensing	5% to 85%, non-condensing
Electrical characteristics			
Voltage	120-240 VAC	120-240 VAC	120-240 VAC
Maximum power rating	4.7 W	5 W	3 W
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 1950; ICES-003; HAC (Hearing Aid Compatibility)	UL 1950; ICES-003; HAC (Hearing Aid Compatibility)	UL 1950; ICES-003; HAC (Hearing Aid Compatibility)
Phone characteristics			
Max. calls (lines) supported	5 (NBX), 2 (VCX)	18(NBX) 9(VCX)	50
Programmable lighted buttons	4 (NBX), 2 (VCX)	18	50 (100 with shift button)
Fixed feature buttons	5	4	4
Soft keys	3		
Four-way navigation control	No	Yes	Yes
Display type	Grayscale	Grayscale	N/A
Display backlit	No	No	No
Number of display lines	2	2	N/A
Characters per display line(max.)	24	24	N/A
Display size	3.4 inch	3.4 inch	N/A
Display pixel resolution	160x33	160x33	N/A
Desk stand	Yes - multi-angle, acts as wallmount also	Yes - multi-angle, acts as wallmount also	Yes - multi-angle, acts as wallmount also
Platforms Supported	NBX,VCX	NBX,VCX	NBX,VCX
Default ringtones	9	9	N/A
Emissions	ICES-003 (Canada); FCC Part 15	ICES-003 (Canada); FCC Part 15	ICES-003 (Canada); FCC Part 15
Management	Web-based administration on server only (phone licenses required)	Web-based administration on server only (phone licenses required)	Web-based administration on server only (phone licenses required)
Notes	For Emissions: HP 3101 Basic Phone (JE221A) and HP 3105 Attendant Console (JE228A) are FCC Part 15, Class A. HP 3102 Business Phone (JE223A) is FCC Part 15, Class B. Licenses • Phone licenses are required to operate all HP IP phones on NBX or VCX platforms.	For Emissions: HP 3101 Basic Phone (JE221A) and HP 3105 Attendant Console (JE228A) are FCC Part 15, Class A. HP 3102 Business Phone (JE223A) is FCC Part 15, Class B. Licenses • Phone licenses are required to operate all HP IP phones on NBX or VCX platforms.	For Emissions: HP 3101 Basic Phone (JE221A) and HP 3105 Attendant Console (JE228A) are FCC Part 15, Class A. HP 3102 Business Phone (JE223A) is FCC Part 15, Class B. Licenses • Phone licenses are required to operate all HP IP phones on NBX or VCX platforms.
Services	3-year, parts only, global next-day advance exchange (UW129E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	3-year, parts only, global next-day advance exchange (UW129E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	3-year, parts only, global next-day advance exchange (UW129E) Refer to the HP website at www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.
Standards and protocols (applies to all products in series)	General protocols IEEE 802.1p Priority IEEE 802.3af Power over Ethernet RFC 1541 DHCP		

HP 310x IP Phone Series accessories

Power Supply

HP 90/240V-24VDC Phone Power Supply (AA) (JE232A)

HP 90/240V-24VDC Phone Power Supply (CN) (JE233A)

HP 90/240V-24VDC Phone Power Supply (ME) (JE234A)

HP 90/240V-24VDC Phone Power Supply (SA) (JE235A)

HP 90/240V-24VDC Phone Power Supply (UK) (JE236A)

Power cords

HP 90/240V-24VDC Power Cord (JE237A)

To learn more, visit www.hp.com/networking

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